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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,516	04/03/2006	Zhimei Wu	W67.12-0001	9243
27367 7590 12/14/2007 WESTMAN CHAMPLIN & KELLY, P.A. SUITE 1400 900 SECOND AVENUE SOUTH MINNEAPOLIS, MN 55402-3319			EXAMINER CHANG, JUNGWON	
			ART UNIT 2154	PAPER NUMBER
			MAIL DATE 12/14/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/526,516

Applicant(s)

WU ET AL.

Examiner

Jungwon Chang

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/3/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

1. Claims 1-6 are presented for examination.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-6 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility.

MPEP section 2107.01, General Principles Governing Utility Rejections, which stats in part:

The Office must examine each application to ensure compliance with the "useful invention" or utility requirement of 35 U.S.C. 101. In discharging this obligation, however, Office personnel must keep in mind several general principles that control application of the utility requirement. As interpreted by the Federal courts, 35 U.S.C. 101 has two purposes. First, 35 U.S.C. 101 defines which categories of inventions are eligible for patent protection. An invention that is not a machine, an article of manufacture, a composition or a process cannot be patented. See *Diamond v. Chakrabarty*, 447 U.S. 303, 206 USPQ 193 (1980); *Diamond v. Diehr*, 450 U.S. 175, 209 USPQ 1 (1981). Second, 35 U.S.C. 101 serves to ensure that patents are granted on only those inventions that are "useful." This second purpose has a Constitutional footing - Article I, Section 8 of the Constitution authorizes Congress to provide exclusive rights to inventors to promote the "useful arts." See *Carl Zeiss Stiftung v. Renishaw PLC*, 945 F.2d 1173, 20 USPQ2d 1094 (Fed. Cir. 1991). Thus, to satisfy the requirements of 35 U.S.C. 101, an applicant must claim an invention that is statutory subject matter and must show that the claimed invention is "useful" for some purpose either explicitly or implicitly. Application of this latter element of 35 U.S.C. 101 is the focus of these guidelines.

Deficiencies under the "useful invention" requirement of 35 U.S.C. 101 will arise in one of two forms. The first is where it is not apparent why the invention is "useful." This can occur when an applicant fails to identify any specific and substantial utility for the invention or fails to disclose enough information about the invention to make its usefulness immediately apparent to those familiar with the technological field of the invention. *Brenner v. Manson*, 383 U.S. 519, 148 USPQ 689 (1966); *In re Fisher*, 421 F.3d 1365, 76 USPQ2d 1225 (Fed. Cir. 2005); *In re Ziegler*, 992 F.2d 1197, 26 USPQ2d 1600 (Fed. Cir. 1993). The second type of deficiency arises in the rare instance where an assertion of specific and substantial utility for the invention made by an applicant is not credible.

4. The claimed invention in claims 1-6 merely recite a single step for connecting a plurality of devices, without any active, positive steps delimiting how this community network system with broadband integrated service is actually practiced. The recited single step does not produce either a physical transformation or a useful, concrete and tangible result.

#### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wendt et al. (US 7,075,919), hereinafter Wendt, in view of Kung et al, (US 6,826,173), hereinafter Kung, Chen et al, (US 2001/0030950), hereinafter Chen.

9. As to claim 1, Wendt discloses the invention substantially as claimed, including a community network system with broadband integrated services (col. 1, lines 8-11) which is composed of satellite digital television receiver servers (fig. 4A, "local TV tower, satellite dish farm"), community video servers (col. 4, lines 10-17, "media hosting servers"), network accounting servers (190, fig. 4B), network management servers (180, fig. 4B, "network MGMT server"), Gigabit Ethernet Switches (116, fig. 4B), Fast Ethernet switches (116, fig. 4B), home gateways (28, fig. 1), digital television sets (36, fig. 1), analogue television sets (36, fig. 1), computers (32, fig. 1), IP telephones (38, fig. 1) (col. 4, line 36 - col. 5, line 22), and which is characterized in that the backbone Gigabit Ethernet Switch of the system is connected to other Gigabit Ethernet Switches via a 1000 Mbps port (col. 17, line 61 – col. 18, line 21, "fast Ethernet ports") (fig. 4A; col. 16, lines 21-38, "switches 112, 116, 126, 170 and 196 may be coupled in any appropriate

manner”), and is connected to the satellite digital television receiver server (fig. 4A, “local TV tower, satellite dish farm”), the video server (col. 4, lines 10-17, “media hosting servers”), the video conference server, the network accounting server (190, fig. 4B), and the network management server (180, fig. 4B, “network MGMT server”) via a 1000 Mbps port or a 100 Mbps port (col. 5, lines 7-22; col. 17, line 61 – col. 18, line 21) (fig. 4A; col. 16, lines 21-38, “switches 112, 116, 126, 170 and 196 may be coupled in any appropriate manner”); the Gigabit Ethernet Switches are connected to a plurality of Fast Ethernet switches via a 100 Mbps port (col. 5, lines 7-22; col. 17, line 61 – col. 18, line 21) (col. 17, line 61 – col. 18, line 21, “fast Ethernet ports”) (fig. 4A; col. 16, lines 21-38, “switches 112, 116, 126, 170 and 196 may be coupled in any appropriate manner”); the Fast Ethernet switches are connected to a plurality of home gateways and wireless gateways via 10/100Mbps compatible ports (col. 5, lines 7-22; col. 17, line 61 – col. 18, line 21, “fast Ethernet ports”) (fig. 4A; col. 16, lines 21-38, “switches 112, 116, 126, 170 and 196 may be coupled in any appropriate manner”); the IP telephone is connected between the Fast Ethernet switch and the home gateway or between the home gateway and the computer (col. 13, lines 11-45, establishes a call between an IP telephone 38...at customer premises 12 and a gateway 124 or 130”); the video server is connected to a video storage (col. 4, lines 10-17, “media hosting servers”); the satellite digital television receiver server is connected to an outdoor antenna for receiving satellite data signals (fig. 4A, “local TV tower, satellite dish farm”); the backbone Gigabit Ethernet Switch is also connected with a metropolitan area network via a 1000 Mbps port (col. 5, lines 7-22; col. 17, line 61 – col. 18, line 21, “fast Ethernet ports”) (fig. 4A; col. 16, lines

21-38, "switches 112, 116, 126, 170 and 196 may be coupled in any appropriate manner"); and software system.

10. Wendt does not specifically disclose discloses wireless gateways, wireless IP mobile phones and PCs with a wireless interface 1000 Mbps port; the home gateways are connected to the digital television, the analogue television, and the computer; and video conference servers. However, Kung discloses gateways, wireless IP mobile phones and PCs with a wireless interface port (col. 4, line 54 – col. 5, line 25, "broadband residential gateway 300 may be variously configured to provide one or more integrated communication interfaces to ... televisions, personal computer..."; col. 20, lines 1-38); the home gateways (300, fig. 1) are connected to the digital television, the analogue television, and the computer (col. 4, line 54 – col. 5, line 25, "broadband residential gateway 300 may be variously configured to provide one or more integrated communication interfaces to ... televisions, personal computer"); and video conference servers (224, fig. 2; col. 14, lines 1-40, "multimedia conference call...invite the press to listen on the call and have multimedia access...high fidelity audio transmission/reception, high definition video transmission/reception"). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Wendt and Kung because Kung's gateways would improve network access capability by interconnecting televisions, personal computers, and wireless telephones (Kung, ol. 20, lines 1-38).

Although Wendt discloses gateways, Wendt does not specifically disclose wireless

gateways. Chen disclose wireless gateways (90, fig. 5; fig. 6; page 6, 0078). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Wendt and Chen because Chen's wireless gateway would provide long-range to-home wireless networking at the wireless gateway interface from a WAP enabled devices (Chen, page 6, 0078).

11. As to claim 2, it is rejected for the same reasons set forth in claim 1 above. In addition, Wendt discloses wherein the satellite digital television receiver server is an industrial PC with digital television receiver card which is connected to an outdoor antenna (fig. 4A, "local TV tower, satellite dish farm"); the video server may be one or more PC servers with disk array (col. 4, lines 10-17, "media hosting servers"); a PC functions as the network accounting server (190, fig. 4B); according to the configuration, the Gigabit Ethernet Switch can provide 1 to 6 1 000 Mbps ports or 8 to 48 100 Mbps ports; one 1000 Mbps interface module is exchangeable with eight 100 Mbps interface modules; the Fast Ethernet switch provides 16 to 32 10/100 Mbps compatible ports; the home gateway provides two or more 10 Mbps or 10/100 Mbps ports, in which one port is connected to one Fast Ethernet switch (col. 5, lines 7-22; col. 17, line 61 – col. 18, line 21) (col. 17, line 61 – col. 18, line 21), and the other ports are connected to the IP telephone, the home computer or other devices (col. 5, lines 7-22; col. 17, line 61 – col. 18, line 21) (col. 17, line 61 – col. 18, line 21); a 15D type VGA interface, an S-Video interface, a composite video interface, a right sound channel interface and a left sound channel interface are used to send audio/video signals to television sets and audio



devices (col. 8, lines 29-60); an infrared link is between a remote control unit and a remote controller (col. 3, lines 22-34); the gateway is connected to the Fast Ethernet switch or the Gigabit Ethernet Switch through one 10 Mbps or 10/100 Mbps port (col. 5, lines 7-22; col. 17, line 61 – col. 18, line 21) (col. 17, line 61 – col. 18, line 21).

12. As to claim 3, Wendt discloses wherein the software system mainly includes embedded operation system, routing protocols, multicasting protocols, QoS protocols, SNMP protocols, digital television reception and demultiplexing, video on demand system, network management for an access network and network accounting (col. 1, line 58 - col. 2, line 21, "common communication protocol"; col. 15, lines 11-65).

13. As to claim 4, Wendt discloses wherein the system uses an asymmetric VLAN technique to achieve the separation of user information, and uses IP addresses and MAC addresses of devices in the home gateway as well as the VLAN numbers allocated in the system to validate the users' identities (col. 13, line 63 – col. 14, line 8, "VPN; col. 16, lines 2-20, "VLAN").

14. As to claim 6, Wendt discloses wherein the speed phase locking of the application layer is processed on the home gateway.

15. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wendt, Kung, Chen, further in view of Rosengren et al, (US 5,633,683), hereinafter Rosengren.

16. As to claim 5, Wendt does not specifically disclose there is no mosaic appearance in the digital television sets within 2 hours in average; the average duration of the mosaic appearance is no more that 0.5 second; the television channel switchover response is within 0.5 second, and the channel switchover is completed within 3 seconds; the VoD response is within 0.5 second, and the successful play begins within 3 seconds. Rosengren discloses there is no mosaic appearance in the digital television sets within 2 hours in average; the average duration of the mosaic appearance is no more that 0.5 second; the television channel switchover response is within 0.5 second, and the channel switchover is completed within 3 seconds; the VoD response is within 0.5 second, and the successful play begins within 3 seconds (figs. 7-8; col. 2, lines 25-44; col. 3, lines 15-26; col. 4, line 63 – col. 5, line 22). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Wendt, Kung, Chen and Rosengren because Rosengren's transmitting mosaic appearance as a program would improve displaying the selected mosaic appearance for a predetermined period of time (Rosengren, col. 4, line 63 – col. 5, line 22, "mosaic\_picture\_descriptor...length").

### ***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure:

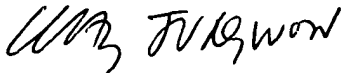
Laksono, US 2003/0156218, Szczepanek et al, US 6,690,668, Kung et al, US 7,180,889 disclose a method and system for multiplexing a plurality of channels within a multimedia system.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jungwon Chang whose telephone number is 571-272-3960. The examiner can normally be reached on 6:30-2:00 (Monday-Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

December 4, 2007

  
JUNGWON CHANG  
PRIMARY EXAMINER  
TECHNOLOGY CENTER 2100